IT IS THE VENDOR'S RESPONSIBILITY TO CHECK FOR ADDENDUM PRIOR TO SUBMITTING PROPOSALS

REQUEST FOR PROPOSERS
SPECIFICATION NO. 06-083

City of Lincoln intends to enter into contract and invites you to submit a sealed proposal for:

ONE (1) LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)

MEETING OR EXCEEDING CITY OF LINCOLN'S SPECIFICATIONS

Sealed proposals will be received by City of Lincoln, Nebraska on or before **12:00 noon Central Time, Wednesday, March 15, 2006,** in the office of the Purchasing Agent, **"K" Street Complex (SW Wing), Suite 200, 440 So. 8th Street,** Lincoln, NE 68508. Proposals will be publicly opened and read aloud in the First Floor Conference Room at the "K" Street Complex.

Proposers should take caution if U.S. mail or mail delivery services are used for the submission of proposals. Mailing should be made in sufficient time for proposals to arrive in the Purchasing Division, prior to the time and date specified above. Late proposal will not be considered.

SEALED PROPOSAL
SPECIFICATION NO. 06-083
PROPOSAL OPENING TIME: 12:00 NOON
DATE: Wednesday, March 15, 2006

ADDENDA RECEIPT: The receipt of the addenda to the specification number ___ through ___ is hereby acknowledged. Failure of any bidder to receive any addenda or interpretation shall not relieve the bidder from obligations specified in the bid request. All addenda shall become part of the final contract document.

The undersigned submitter, having full knowledge of the requirements of City of Lincoln for the listed project agrees to provide the labor, certificate of insurance, materials and equipment in strict accordance with the specifications as prepared by the City for the consideration of the amount set forth in the following price schedule:

ONE (1) LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)

NO BID BOND REQUIRED

NOTE: RETURN 8 COMPLETE COPIES OF PROPOSAL OFFER AND SUPPORTING MATERIAL.
MARK OUTSIDE OF PROPOSAL ENVELOPE AS FOLLOWS:
SEALED PROPOSAL FOR SPEC. NO. 06-083
NOTE:
RETURN ONE (1) COPY OF PROPOSAL PRICEING INFORMATION IN A SEPARATE SEALED ENVELOPE. MARK OUTSIDE OF PROPOSAL PRICING ENVELOPE AS FOLLOWS:
VENDOR NAME_____
SEALED BID FOR SPECIFICATION NO. 06 -083

Company Name	By (Signature)
Street Address or P.O. Box	(Print Name)
City, State Zip	(Title)
Telephone	(Date)
E-Mail Address	Estimated Delivery Days
	Terms of Payment

DEFINITIONS

ANSI	American National Standards Institute
COC	Chain of Custody
GUI	Graphical User Interface
O/S	Operating System
ODBC	Open DataBase Connectivity
LIMS	Laboratory Information Management System
LWS	Lincoln Water System
MDAC	Microsoft Data Access Components
RDMS	Relational Database Management System
RDRAM	Rambus Dynamic Random Access Memory
RFP	Request For Proposal
SCSI	Small Computer System Interface
QA	Quality Assurance
QC	Quality Control

SPECIFICATIONS
One (1) LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)

1. GENERAL INFORMATION

These specifications identify minimum and optimal functional and processing capabilities required for the computerized Laboratory Information Management System (LIMS).

1.1 The City of Lincoln invites you to submit a sealed proposal for the purchase of one (1) **web based** LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS) for the Lincoln Water System (LWS), Lincoln, NE.

1.2 A computerized LIMS shall provide LWS's water quality laboratory with management information tools to allow for efficient laboratory operations in producing timely and accurate analytical data and assessment reports, and to make validated data available to all required parties.

1.2.1 Data entry, access and retrieval shall be provided, at a minimum, for the following:

- Manual data input by users
- Direct data acquisition from laboratory instruments
- Data storage
- Data processing and manipulation
- Data retrieval and reporting

1.3 The LIMS processing functions shall include the following:

- System management
- Database management
- Sample management and tracking
- Workload management
- Sample analysis and data acquisition
- Data validation and limit checking
- Quality control/assurance
- Statistical data analysis and graphics
- Data import/export capability
- Ad-hoc querying
- Barcoding
- Reporting

1.4 The LIMS shall perform data acquisition from laboratory instruments, while simultaneously supporting workstations on a Windows 2003 server, XP client network performing other LIMS functions.

1.5 The LIMS application software shall be comprised of proven packages.

1.5.1 These packages shall permit on-site configuration and generation of all application related programs including displays, tables and reports.

1.6 The LIMS application software shall be a standard product which is fully developed, tested, and supported.

1.6.1 It shall be compatible with the system hardware, and shall meet the functional requirements specified.

1.7 All system software shall be designed to allow growth.

1.7.1 Sufficient space shall be recommended to allow for additional screen displays, and for additional, or expanded, reports.

1.8 LWS shall own any and all data generated by the LIMS software.

1.9 LWS shall own any and all programming code.

2. PROPOSAL PROCEDURE

2.1 The Proposer is asked to quote a firm base price, plus separate pricing for service agreements and hourly labor rates.

2.2 The proposal shall be in accordance with these specifications with any exceptions, clarifications, or alternates clearly stated and outlined in detail per section line number.

2.2.1 Please complete the enclosed check list indicating any variance to the specifications listed.

2.2.1.1 The following definitions shall be used when completing the table. Place an "X" in the appropriate column.

____ A. "Yes." Where the proposal is in complete accordance with the Specification statement

____ B. "No." Where the proposal does not meet the specification requirements and no alternative is proposed because of a prohibitive development price or schedule delay.

____ C. "Yes with Modifications." Where the proposal varies from the Specification requirements, the Proposer will use the format described in the instructions for completion of this table to provide explanation of the deviation, including a reference to the Specification paragraphs involved. Explain how the proposed equivalent meets the functional intent of the Specification and submit documentation describing the substituted item. (Note: Mark the Yes column with an "M")

2.2.2 The City reserves the right to determine if any variance is of material value to the City, regarding functionality.

2.2.2.1 All alternates will be considered.

2.3 The Proposer shall guarantee performance of the LIMS.

2.4 The proposed price shall remain firm for 90 days after the close of this solicitation, and shall include shipping, installation, training and maintenance manuals as stated in the proposal specifications.

2.5 If the Proposer is unable to meet all the required specifications, a *written explanation shall be included per line item number*.

3. PROPOSAL FORMAT

The proposal shall be presented as follows :

3.1 Price.

3.1.1 Price for required instrumentation/equipment.

3.1.2 Options to the proposal shall be presented separately.

3.1.2.1 These options include Maintenance / Service Contract Options, not otherwise specified.

3.1.3 Hourly Rate for Programming (i.e. custom reports, data conversion)

3.1.4 Pricing shall be submitted in a separate sealed envelope.

3.2 Schedule. Estimated date for delivery, installation and training.

3.2.1 The Proposer shall include a project schedule with the Proposal specifying the duration, in calendar days, for the procurement of the software as defined in the Scope of Work, and the proposed duration of the installation, configuration, and training for the software systems.

3.2.2 If any customization is required, include this explicitly in the schedule.

3.3 Technical Approach. Each Proposer shall include a narrative describing the Proposer's recommendations, methods, and techniques for accomplishing the tasks listed in the Systems Specifications.

3.3.1 This narrative shall include a description of any area not addressed in the Systems Specifications that the Proposer believes to be essential to successful completion of the project.

3.3.2 If and when the Proposer's methodology differs from the concepts described in this

document, the Proposer shall describe the differences.

3.3.3 The detail provided is of great importance in aiding with the evaluation of the proposal.

3.3.4 Any Proposal failing to address itself clearly and completely to the specifications may be considered non-responsive.

3.4 Questionaire. Each Proposer shall complete and return the Questionaire.

3.5 References. The Proposer will include the description of at least three projects or installations of a similar nature of work performed in the past or currently on-going, which would substantiate the qualifications of the Proposer for this project.

3.6 The Proposer can provide a written summary of any additional features which are not listed in the specification.

3.7 Example/Demonstration CD/DVD. The Proposer shall provide three (3) demonstration copies of the LIMS proposed. The demonstration copy shall show the LIMS environment and layout of operating windows/screens of the different applications within the LIMS.

4. EVALUATION CRITERIA

4.1 In evaluating Proposals, LWS will consider the following criteria:

4.1.1 The performance, reputation, financial stability, qualifications, and experience of the Proposers, Suppliers, and other persons and organizations proposed for the Work.

4.1.2 Evidence of Proposer's ability to meet these criteria must be submitted as part of the Proposal, and will include the names and telephone numbers of references, as well as evidence of financial stability and business reliability.

4.1.3 The technical merit of the Proposal including compliance with the prescribed requirements, and any enhancements.

4.1.3.1 The extent to which the Proposer's proposed software products exceed the specified requirements also will be used as a basis for evaluation.

4.1.3.2 This may include configuration suggestions that increase the price/performance benefits.

4.2 The criteria outlined above will be weighted as follows:

4.2.1 Company Performance, Business, Reliability, Qualifications, and Experience	20%
4.2.2 Technical Merit of Proposal	60%
4.2.3 Schedule	5%
4.2.4 References	10%
4.2.5 Cost	5%

4.3 LWS will select a short list of Proposers based on the evaluation described above.

4.3.1 These short-listed Proposers will be invited to demonstrate their LIMS to the LIMS RFP Evaluation Team at the Ashland Water Treatment Plant.

4.4 Product Demonstration

4.4.1 The LIMS products shall be presented using a scripted demonstration provided by LWS.

4.4.1.1 This scripted demonstration will be provided to each short-listed Proposer within three (3) working days following selection.

4.4.2 There will be a minimum of two (2) weeks before the demonstrations.

4.4.3 Vendor will provide reference information of facilities whom currently use the version of LIMS being proposed.

4.4.3.1 The City of Lincoln will be able to visit and observe the current version of LIMS in use.

4.4.3.2 The information obtained during the visit will be used in addition to other Reference information received.

4.4.4 Selection of the successful Proposer will be based on LWS's evaluation of the demonstrated LIMS.

5. SCHEDULE:

5.1 The schedule will be considered as a measurement of commitment and ability to perform according to the needs of LWS.

5.2 The estimated schedule of events is listed below:

5.2.1	Late February 2006	RFP published and distributed
5.2.2	Mid March 2006	RFP Closing, all proposals due
5.2.3	April 2006	Initial Evaluation, request demonstration
5.2.4	May 2006	Demonstrations, Reference Checks and Evaluation of LIMS including visit to laboratory using recommended LIMS
5.2.5	June 2006	Notification of Proposal Award to purchasing, purchase negotiations.
5.2.6	July – August 2006	LIMS installation, setup, configuration and training.
5.2.7	August 2006 - October 2006	LIMS operational for beta testing/confirmation of system, customization and final training
5.2.8	November 2006	LIMS on-line and fully operational

6. DELIVERY, INSTALLATION AND PAYMENT

6.1 Prices offered shall be new, complete in every way, including freight and delivery costs, ready for use by the City.

6.2 Payment shall be 50 percent upon delivery and installations 40% at start of training with the final 10 percent upon completion of the training and 120 days of satisfactory operation of the system.

7. SPECIFIC INFORMATION - All questions regarding these specifications must be made in writing to the following:

Vince Mejer, Purchasing Agent
"K" Street Complex (SW Wing)
440 So. 8th Street
Lincoln, NE 68508
Email: vmejer@ci.lincoln.ne.us
Phone: (402) 441-8314
Fax: (402) 441-6513

7.1 All questions must be received in the Purchasing Department by no later than, Wednesday, March 7, 2006, to allow adequate time to prepare an addendum to mail to all known specification holders.

FIRM NAME:_____

EQUIPMENT DETAILS - Complete and return with your proposal 06-083

LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS):

As per specifications listed herein.

Specify brand/model: _____

GENERAL SPECIFICATIONS

___ ___ 1. General Description: The LIMS shall be installed on the City of Lincoln network.

___ ___ 2. Database Server: The LIMS shall operate on an LWS owned database server with the following specifications: (**NOT TO BE PROVIDED BY VENDOR**)

- Dual Pentium IV 3.0gHz processors
- Integrated 3Com 10/100/1000 Ethernet controller
- Dual channel SCSI controller with external 68 pin Ultrawide connector
- 2 GB RDRAM (1 GB sticks) up to 8 GB
- USB version 2.0 – 2 ports
- 15K Spin HD
- 2 X 3 Split Back Plane
- RAID 5 data
- Mirror O/S
- CDR/CD-RW drive
- 3.5" 1.44 MB Floppy drive
- External 80 GB DDS-4 Tape Drive with 10 tapes
- SQL 2005/2000 Server software with 1 terminal server license
- Windows 2003 Server Enterprise Edition
- Backup Exec software with SQL Module

___ ___ 3. Personal Computers: The client workstations are 2.50 GHz Pentium IV with 512 MB RAM.

___ ___ 3.1 The operating system is Windows XP Pro Workstation.

___ ___ 3.2 The clients will not be dedicated to the LIMS but have to work with the LIMS.

___ ___ 3.3 Not provided by vendor.

LIMS REQUIREMENTS

___ ___ 1. System Management:

___ ___ 1.1 Licensed Users: The LIMS shall include a 10 concurrent-user license fee.

___ ___ 1.2 Compatibility: The LIMS shall run on a server platform and an operating system compatible with the existing Windows 2003 sever platform.

___ ___ 1.3 System Management: The LIMS shall provide system management tools to permit safe, secure management of the LIMS application.

___ ___ 1.3.1 These tools shall include application security, data audit trail, database backup/recovery, data archival/restoration and interoperability with SQL-based and ASCII-based applications.

___ ___ 1.4 Security: The LIMS system shall provide security features to ensure that only authorized individuals enter, view and modify data.

___ ___ 1.4.1 Access levels shall be definable to restrict use of system level functions (such as user authorization),

1.4.2 Access levels shall be definable to provide multiple levels of data access to restrict data entry, data approval, data retrieval, data modification, and database structure creation or modification functions.

1.4.3 Provide a full audit trail that can be viewed and printed and that cannot be bypassed.

1.5 Data Archiving and Purging: The LIMS shall provide a means to archive and purge (delete) data at the request of the system administrator, or automatically after a specified period of time.

1.5.1 Archiving is removing the data from the active database and storing it in a retrievable form elsewhere.

1.5.2 Archiving must include user-selectable parameters.

1.5.3 These parameters shall include collection and approval date ranges, sample type, location, and test.

1.5.4 The end user shall have the capability to view archived data without restoring the data into the "active" location.

1.5.5 The purge utility must also include user-selectable parameters.

1.5.6 These parameters shall include collection and approval date ranges, sampling point and sample type.

1.6 Static Information: The LIMS shall maintain static administrative information such as, but not limited to, procedures, safety information, and project information.

1.6.1 Authorized users shall be able to query, add, modify and delete this information.

2. Database Management System:

2.1 Relational Database Management System: The LIMS shall provide a relational database management system (RDBMS) for information storage and retrieval.

2.1.1 The LIMS RDBMS shall be available with a full use license, providing not only access to the LIMS application, but also application development tools, a data dictionary, a data query utility, and a report writer.

2.1.2 The RDBMS shall be licensed for minimum 10 concurrent run-time users.

2.1.3 The RDBMS shall support client / server architecture.

2.1.4 The RDBMS shall support parallel processing.

2.1.5 The RDBMS shall be able to support data spanning multiple physical disks.

2.1.6 The RDBMS shall run on multiple server operating systems, such as Windows 2003.

2.1.7 The LIMS shall be part of a SQL or Oracle system.

2.2 Transaction Journal Utility: A transaction journal utility shall provide database reconstruction in case of system failure.

2.2.1 This facility shall restrict the possible loss of data to the database transactions in progress when the system fails.

2.2.2 Proposer must provide written instructions for reconstruction.

2.3 Graphical User Interface: The LIMS user interface and all interactive database management tools shall be a simple-to-use Graphical User Interface (GUI).

2.4. Data Export: The Database System shall be able to extract and convert data elements into an ASCII or CSV format for use outside of the LIMS application environment.

2.4.1 The following file formats are desired or required, as indicated:

2.4.1.1 ASCII - Required

2.4.1.2 EXCEL-.xls - Required
2.4.1.3 Crystal Reports - Required
2.4.1.4 NWAnalyst - Required
2.4.1.5 Power Point - Desired
2.4.1.6 Word - Desired
2.4.1.7 ESRI ArcView/ArcGIS product shape files - Desired

2.5. Data Import:

2.5.1 The Database system shall be able to import an ASCII data file, convert it as needed, and store the data in the LIMS database management system.

2.5.2 Historical data from an ACCESS database can be imported into the LIMS database.

2.5.3 The Database system shall be able to import data from LimsLink files.

2.6 Interoperability: The database system shall be ODBC and MDAC compliant.

2.6.1 It will allow data exchange with other ANSI SQL, ODBC compliant database systems, including Microsoft Access.

2.6.2 Compliance will also enable the database to interface with ODBC compliant word processing, statistical analysis and spreadsheet software for producing reports, letters, memoranda and other documents.

2.7 Data Dictionary: The data dictionary shall control the definition and manipulation of data, and facilitate changes to data structures.

2.7.1 The Data Dictionary and any modifications to such shall be owned by LWS.

2.8 Customizable: The RDMS shall be user customizable to the extent that system administrators will be able to add the following items:

2.8.1 Create new tables with relationships and links to existing tables.
2.8.2 Add fields to existing tables
2.8.3 Add functions to the program menus (including main menu) and all screens
2.8.4 Modify existing table properties
2.8.5 Create queries, forms and design custom reports
2.8.6 Create “one button” custom reports and graphs/charts

2.9 Database Development:

2.9.1 The database development tools shall be licensed for 3 concurrent users.
2.9.2 The report writer tools shall allow development by 3 concurrent users.
2.9.3 The database shall be customizable such that any field/record may be easily added or removed from the program or report.

3. Sample Management and Tracking

3.1 Sample tracking shall begin with the sample request and track the sample through log-in, analysis scheduling, analysis, quality assurance, review and approval.

3.1.1 An audit trail shall be maintained for each sample activity. Sample status will be readily retrieved.

3.2 The LIMS shall provide sample log-in and sample tracking capabilities capable of distinguishing in-house analyses from contract lab analyses.

3.2.1 In-house analyses as well as analyses from different contract labs must be tracked separately.

___ ___ 3.2.2 The proposed LIMS shall also enable the user to change the status of a sample from in-house to contractual.

___ ___ 3.3 A manual sample log-in function shall record data including sample collector, sample location, sample date and time, sample type, sample receiver, sample received date and time, priority assignment, test(s) assigned, and sample splitting and field test data.

___ ___ 3.3.1 Fields shall be able to be made mandatory so that data is required before a sample can be committed to the database.

___ ___ 3.3.2 Data shall be posted directly to the database.

___ ___ 3.3.3 The log-in function shall be flexible enough to provide some degree of user customization, such as the addition of custom fields and custom sample identification formats, or to define sample types and categories.

___ ___ 3.4 A multiple sample log-in function shall be provided.

___ ___ 3.4.1 This function shall allow a batch of similar samples to be logged in one operation, assigning unique sample identifications to each sample, and duplicating common fields for each sample in the batch. Individual samples must then be modifiable at the user's discretion.

___ ___ 3.5 The LIMS shall be able to automatically log samples according to a stored schedule.

___ ___ 3.6 Data entry functions shall perform immediate database updates.

___ ___ 3.6.1 Data shall be available for retrieval immediately after data entry.

___ ___ 3.6.2 Historical data from an Access database can be imported into the LIMS database.

___ ___ 3.7 Sampling Site Information: Static information for sampling sites will be stored in the LIMS.

___ ___ 3.7.1 The minimum data elements which will be stored are site id, description, location, type, sample schedule and contact information.

___ ___ 3.8 Electronic Import of Historical Results: The LIMS shall provide the capability to import historical data that is stored in electronic format, particularly ACCESS and RBASE.

___ ___ 4. Sample Scheduling

___ ___ 4.1 Routine Samples: The LIMS shall be able to store sample collection locations and the frequency that various routine sample types are to be collected from each location.

___ ___ 4.2 Automatic Log-in: The LIMS shall be able to automatically log in routine samples including the following:

___ ___ 4.2.1 Daily routine samples

___ ___ 4.2.2 Samples for specified days of the week

___ ___ 4.2.3 Monthly samples

___ ___ 4.2.4 Yearly samples

___ ___ 4.3 Automatic Test Scheduling: For routine automatically logged samples, the LIMS shall be able to master schedule the test/analyses which will be required.

4.3.1 The schedule shall include:

___ ___ 4.3.1.1 Daily routine samples

___ ___ 4.3.1.2 Specified days of the week

___ ___ 4.3.1.3 Monthly samples

___ ___ 4.3.1.4 Yearly samples

___ ___ 4.3.1.5 Quarterly

4.3.1.6 Semi-annually
4.3.1.7 Annually
4.3.1.8 Tri-annually

4.4 Sampling Site Information: Static information for sampling sites will be stored in the LIMS.

4.4.1 The minimum data elements which will be stored are site id, description, location, type, sample schedule and contact information.

5. Sample Collection:

5.1 Barcode Sample Labels: The system shall permit printing sample identification labels with or without bar codes and reading /writing barcode labels style 128.

6. Unique Sample Identification:

6.1 The LIMS shall automatically assign unique identification codes to each sample.

6.2 In the case where a sample is split or subdivided, the LIMS shall assign and associate subsequent identification codes with the original samples.

6.3 The LIMS shall allow user prioritizing of samples and their subsequent subparts and splits.

6.4 After uniquely identifying a sample, the LIMS shall be capable of providing labels for affixation to the sample container.

6.5 The LIMS shall provide a standard format that can be duplicated and modified by an authorized user permitting various types of data to be retrieved from the database and incorporated on the label.

6.5.1 The standard label format should include room for multiple fields besides the bar-code and be user configurable.

6.6 Modifications shall allow including special handling or safety procedures.

6.7 The system shall provide the ability to specify the number of copies of the labels to generate, and shall provide a reprint option for single or multiple additional labels.

6.8 The LIMS shall be able to generate and read bar code style 128 for identification, utilization on labels, chain of custody documents, and data entry purposes.

6.9 LIMS must be compatible with American Microsystems© barcode reader and DYMO© lablewriters.

7. Sample Receiving

7.1 Receiving Details: When samples arrive at the laboratory, the LIMS shall capture, at a minimum the following receiving data items:

7.1.1 Date and time of receipt
7.1.2 Sample Receiver
7.1.3 Location of sample
7.1.4 Date and time of sample collection
7.1.5 Sample Collector
7.1.6 Sample identification code
7.1.7 Unusual sample conditions
7.1.8 Tests required (if not previously defined)
7.1.9 Tests requested
7.1.10 Field test results
7.1.11 Comments or ability for Custom Fields

7.2 Multiple Entry Methods: The LIMS shall permit entry of the receiving details in multiple ways:

7.2.1 The LIMS shall be able to simultaneously log in and receive samples into the LIMS that are unexpected or non-routine.

7.2.2 Samples of a particular type that arrive in batch shall be received in batch. It shall not be necessary for the user to re-enter similar or repeat information for a series of samples.

7.3 Storage of Procedures and Tests: The LIMS shall store information including tests required, lab sample preparation, sample holding time, and/or storage requirements with each sample type, such that the LIMS or the user can associate these tests, procedures and time limits with an incoming sample.

7.4 Associate Procedures and Tests with Samples: Upon receipt of a sample, the LIMS shall associate appropriate preparation procedures and tests required for specific sample types.

7.4.1 Users shall be able to add or delete assigned tests.

7.5 Test Assignment Modifications: Authorized users shall be able to modify tests or procedures assigned to logged in samples without modifying the standard procedures and test assignments.

7.6 Calculate Maximum Holding Time: Based on sample types and tests required, the LIMS shall associate sample holding times with each sample based on its sampling time to produce maximum holding time/date(s).

8. Test/Analyses Administration

8.1 Standard Tests/Analyses per Sample Type: Each test or analysis/type shall be uniquely identified with a code by the LIMS.

8.1.1 The test identification code shall permit the association of multiple test components with that test code.

8.1.2 The LIMS shall store data about each component such that the user can indicate, upon initial entry of the data, which components require computer performed mathematical computations.

8.2 Associate Developed Calculations with Tests: In order to automatically perform mathematical computations, the LIMS shall permit the development and association of mathematical routines developed by authorized users for designated test codes.

8.3 Test Data Modification: Modifications and deletions of test data by authorized users shall be permitted.

8.3.1 Modification of test shall require entry of comments by the user. Comment codes and explanations shall be entered in a table with entry of code automatically including the explanation in comment sections.

8.3.2 Codes and explanations shall be available thru "user help or drop-down" menus

8.4 Test Result Entry: Test results shall be entered in multiple formats. The LIMS shall provide the entry of test results in the following formats, at a minimum:

8.4.1 All results from one test performed on many samples

8.4.2 All results from many tests performed on one sample

8.4.3 All results from one test performed on one sample

___ ___ 8.5 Special Result Values: The LIMS shall be able to record special result values such as Not Detected, Not Measured, present, absent, positive, negative, <, >, or Null. The LIMS shall have the capability to correctly handle all special result values in mathematical computations.

___ ___ 8.5.1 Users shall be able to define in advance how special result values will be handled in calculations and charts.

___ ___ 8.5.2 The LIMS should have the ability to enter text values into the result field.

___ ___ 8.6 User ID: The LIMS shall be able to identify and capture data concerning which laboratory analyst performed the test, which user entered the results and which user approved the results.

___ ___ 8.7 Instrument Interface: The LIMS shall be capable of receiving results directly into its database from interfaced instruments.

___ ___ 8.7.1 Specific instruments and required processes are listed in section **C** - Interface Requirements.

___ ___ 9. Bench Sheet / Work Assignment

___ ___ 9.1 Work Assignment Features: The LIMS shall provide work assignment features for planning and scheduling the laboratory's workload. These features shall take into account such data as:

___ ___ 9.1.1 Sample Priority

___ ___ 9.1.2 Maximum valid holding time

___ ___ 9.1.3 Sample age

___ ___ 9.1.4 Due Date

___ ___ 9.1.5 Sample Project Name

___ ___ 9.2 Work Assignment Reports: A work assignment report, selectable by the following criteria, shall be provided:

___ ___ 9.2.1 Identical analysis type

___ ___ 9.2.2 Individual analyst

___ ___ 9.2.3 Individual workstation

___ ___ 9.2.4 Instrument

___ ___ 9.2.5 Date

___ ___ 9.2.6 Project

___ ___ 9.3 The generation of the bench sheet shall be available upon request by a user or in a batch process. Single and/or group selection for reprinting shall be available upon request.

___ ___ 9.3.1 The LIMS shall provide the capability to create an additional bench sheet for samples received after the original bench sheets were prepared.

___ ___ 9.3.2 The ability to delete a sample or an analysis after it has been scheduled shall also be provided.

___ ___ 9.4 Bench Sheet Flexibility: Bench sheets shall be created for one type of test and associate all samples assigned to that test to a bench sheet, as well as a bench sheet for one sample and all assigned tests.

___ ___ 9.5 Bench Sheet Contents: Content of the bench sheet shall include, but not be limited to, the following characteristics:

___ ___ 9.5.1 Specific analysis format (e.g., description of analysis, sample name, location, identity, sample date, analysis date, and name of analyst)

9.5.2 Quality control samples: blanks, replicates and quality control spikes and standards

10. Status Monitoring

10.1 Sample Status: The LIMS shall provide methods for monitoring sample status throughout the sample life-cycle.

10.1.1 Sample status codes shall automatically be assigned and updated by the system based on events or transactions occurring.

10.2 Test Status: The LIMS shall provide a method to monitor test and analysis status.

10.2.1 The status of tests assigned to a specific sample identification code shall have a direct bearing on the status of the sample itself (e.g., a sample shall not be indicated as complete unless all assigned tests have a status of complete.)

10.3 Sample Status Codes: The LIMS shall provide codes to monitor sample status for the following conditions, at a minimum:

10.3.1 Sample expected or logged, but not received

10.3.2 Broken sample container

10.3.3 Sample received by the laboratory

10.3.4 Sample has tests assigned that are in progress

10.3.5 Sample has all assigned tests completed

10.3.6 Sample results have been reviewed and verified

10.3.7 Sample data has received formal approval from lab management

10.3.8 A recollection of the sample has been ordered

10.3.9 Custom status codes defined by the laboratory

10.4 Test Status Codes: The LIMS shall provide codes to monitor test and analysis status for the following conditions, at a minimum:

10.4.1 Test is assigned to a bench sheet, and is in progress

10.4.2 Test is complete and results have been entered into LIMS

10.4.3 Test results have been reviewed

10.4.4 Test results have failed quality control

10.4.5 Test results have exceeded specified limits

10.4.6 A re-test has been ordered for the same sample and test

10.4.7 Test results have associated text or limits violations

10.5 Sample Disposal: The LIMS shall provide a means for users to know when samples may or should be disposed of.

11. Test Result Management

11.1 Comments: The LIMS shall permit the entry of comments and/or coded comments, which may be inserted by users in place of, or in addition to analytical result data.

11.1.1 The LIMS shall permit the user, at the user's option, to enter an explanation in textual format to describe unusual conditions or circumstances.

11.1.2 When text has been added to explain a test result, the LIMS shall indicate that associated text exists.

11.2 Calculations: The system shall support calculations based on the results of multiple analyses and perform reasonableness checks on the computed results.

11.2.1 The number of significant digits for calculations shall be user definable.

11.3 Results Limits: Test data shall have associated results limits.

___ ___ 11.3.1 The LIMS shall allow users to enter regulatory limits such as MDLs and MCLs and associate sets of limits with each sampling location.

___ ___ 11.3.2 Each analyte in a limit set shall have associated effective dates.

___ ___ 11.3.3 These limits shall be used by the LIMS transaction programs to check results being entered and flag the user, during result entry, regarding adherence to the limits.

___ ___ 11.4 Multiple Limits Sets per Location: The LIMS shall include the ability to specify multiple sets of limits for each sampling location.

___ ___ 11.4.1 Each location shall have an associated primary limit set.

___ ___ 11.4.2 All other limit sets at a location shall be considered as secondary limits.

11.5 Test Result Review: The LIMS shall allow an authorized user to review test results.

___ ___ 11.5.1 The review of test results shall be permitted in multiple fashions: by individual test code, by individual samples and a range of identification code(s), by analytical result date, sample collection date, result range and by bench sheet.

___ ___ 11.5.2 Results that are out of limit shall be clearly illustrated.

___ ___ 11.6 Historical and Precision Level Comparisons: For assistance in reviewing and approving test results, the LIMS shall allow the user to view historical results for sample locations and analyses in both tables and graphs/charts.

___ ___ 11.6.1 Precision levels of the analytical results based on Quality Control results shall also be available to the user.

___ ___ 11.6.2 The LIMS shall flag results which do not meet acceptance criteria.

___ ___ 11.7 Review Actions: The review function shall allow the following actions:

___ ___ 11.7.1 Reviewer indicates agreement or disagreement with the test result

___ ___ 11.7.2 Reviewer requires a re-test, where a re-test is defined as a multiple of the original performance of the test.

___ ___ 11.7.2.1 The results from a re-test shall be associated with the original sample identification and test code

___ ___ 11.7.3 Reviewer requests that the sample be collected from the same location again to rerun the test.

___ ___ 11.7.3.1 This new sample will be associated with the original sample even if assigned a new sample number

___ ___ 11.8 Review Actions Affect Status: Actions by the reviewer shall automatically update the status of samples and tests.

___ ___ 11.9 Significant Figures: The proposed LIMS shall automatically report numeric results to the number of significant figures and decimal places specified by the user.

___ ___ 12. Data Validation

___ ___ 12.1 Validation at Data Entry: The validation of all data, including Quality Control (QC) data, shall be completed by the LIMS immediately after entry, so that warnings and reruns are indicated to the users as soon as possible.

___ ___ 12.1.1 The LIMS shall flag results which do not meet acceptance criteria.

___ ___ 12.1.2 The LIMS shall prevent the entry of clearly invalid data in key data entry fields.

___ ___ 12.2 On-Line Help: An on-line help facility shall be provided with the LIMS.

___ ___ 12.2.1 Help shall be available for each functional portion of the system, such that a user can request help information and then return to their original position upon exiting the help function.

___ ___ 13. Chain of Custody/Audit Trail

___ ___ 13.1 Chain of Custody Documents: Chain of Custody (COC) documents shall be produced by the LIMS for each sample bottle collected.

___ ___ 13.1.1 In general, the chain of custody may be printed in conjunction with the sample labels.

___ ___ 13.1.2 An authorized user shall be able to reprint chain of custody documents on request

___ ___ 13.2 COC Appropriate to Sample Type: The chain of custody documents appearance shall be tailored to the specific sample.

___ ___ 13.2.1 More than one sample may be on each COC. Sample id, bar-code, location, sample type, preservatives required, special instructions, and tests requested shall be printed on the chain of custody.

___ ___ 13.2.2 The chain of custody document shall include space for the sampler to write in date/time collected, collector's name, field test results, comments, and at least two signature/date lines for transferring sample custody.

___ ___ 13.2.3 An authorized user may modify the format and content of the chain of custody document.

___ ___ 13.3 Audit Trail for Changes: The LIMS shall provide a complete audit trail of data entry and modification to maintain and verify data integrity.

___ ___ 13.3.1 Such fields as date, time, old data values, reason for modification, and responsible party shall be recorded when data updates are made.

___ ___ 14. Sample Approval

___ ___ 14.1 Final Approval: The LIMS shall provide a function for an authorized user to approve all associated sample and test results data in order to complete the chain of custody requirements, and make the data available for use by other departments and in regulatory reports.

___ ___ 14.2 Multiple Approval Formats: The approval of sample data shall be permitted by individual sample identification code, by test type, by collection location, by project and by analytical result date.

___ ___ 14.3 Management Approval or Disapproval: This function shall allow a manager to indicate their approval or disapproval with the sample and test result information.

___ ___ 14.3.1 The LIMS shall permit the authorized user to disapprove a sample and its associated data when it is discovered that some portion of the data requires a modification after the original approval.

___ ___ 14.3.2 This action shall be recorded in the chain of custody audit trail.

___ ___ 14.4 Protection of Final Management Approved Results: Once the final approval function has been completed, LIMS shall provide the ability to prevent any further modifications to the sample and its associated data.

___ ___ 14.5 Graphs, charts and results tables shall be viewable at time of data entry data review, data validation or reporting writing.

___ ___ 15. Quality Control

___ ___ 15.1 Sample Results with QC Sets: The LIMS shall provide a means of calculating, storing and retrieving Quality Assurance (QA) data such as blanks, spikes, duplicates, % recovery and QC standards, and shall provide a method of associating sample analysis results with a set of quality control data for specific batches.

___ ___ 15.2 QC Calculations and Graphical Reports:

___ ___ 15.2.1 The LIMS shall include the ability to generate precision and accuracy data by calculating standard deviation from replicate samples and QC standards.

___ ___ 15.2.2 The LIMS shall construct and update QC charts using standard deviation, QC standard trending, data validation through predefined QC criteria, historical concentration ranges, and regulatory standards.

___ ___ 15.2.2.1 Trending capabilities shall include the tracking of consistent bias.

___ ___ 15.2.3 QC Charts can be produced and printed automatically based on a predefined trigger.

___ ____ 15.2.3.1 QC charts shall be viewable before printing.

___ ___ 16. Statistical Analysis

___ ___ 16.1 Analysis and Graphics: The LIMS shall include or provide an easy interface to a standard product for statistical analysis capability for historical trending and examination of LIMS data.

___ ___ 16.1.1 Graphics capabilities shall also be provided for display and reporting of statistical information.

___ ___ 16.2 Graphics: The graphics component shall be able to produce a variety of charts, plots and tables.

___ ___ 16.2.1 The charts should be labeled with all required information such as sample location, dates and parameters.

___ ___ 16.3 Interface Requirements: If the statistical analysis and/or graphics functionality are not part of the standard LIMS, a seamless interface between a recommended product and the LIMS is required.

___ ___ 16.3.1 If such an interface is not available, the Proposer shall detail the procedure which will need to be followed by the user to use the statistical or graphical software in order to meet this requirement.

___ ___ 17. On-Line Queries

___ ___ 17.1 Ad-Hoc Queries: End-users shall be able to quickly and easily retrieve logically related data, in an interactive environment, without the need for a detailed understanding of data storage and programming techniques.

___ ___ 17.1.1 A master query form is required.

___ ___ 17.2 Multiple Query Criteria: The LIMS data inquiry facility shall provide efficient retrieval of sample data based on sample identification code, location, analyst name, date received, workstation or device, test, analyte, result values, sample type, and sample status.

___ ___ 17.3 Structured Query Language Tools: End-user tools which use a SQL interface shall be provided.

___ ___ 17.3.1 The LIMS shall provide the user with a query facility which supports nested query, table joins, and outerjoin functionality.

___ ___ 17.4 Standard Queries: The LIMS shall provide standard queries for, at least, a specific sample's associated data, all results for a specific sample collection location, status of samples, status of tests being performed, and all administrative or static data.

___ ___ 17.5 Multiple Output Options: The query function shall be capable of displaying query results on the user's workstation screen, sending them to a printer or saving them as an ASCII file.

___ ___ 17.5.1 Saved queries shall be exportable through, or accessible from, ODBC v drivers.

___ ___ 18. Information Reporting

___ ___ 18.1 Report Development: LWS needs to generate State and Federal regulatory reports, trend analyses, QA/QC charts and graphically formatted reports for administrative planning purposes.

___ ___ 18.1.1 The LIMS shall provide a third party report development tool that is capable of integrating a wide variety of data types from multiple sources.

___ ___ 18.1.2 Information from the LIMS database shall be available for report generation.

___ ___ 18.1.3 This reporting tool shall include the following minimal capabilities

___ ___ 18.1.3.1 ODBC compliant

___ ___ 18.1.3.2 GUI development interface

___ ___ 18.1.3.3 Calculations such as total, subtotal, subtraction, addition, multiplication, division, average, maximum, minimum, standard deviation, mean, median, and mode

___ ___ 18.1.3.4 Format options such as font size and type, page headers and footers, number of significant digits

___ ___ 18.1.3.5 Merging graphics, charts and text into a single report

___ ___ 18.1.3.6 Retrieve and integrate data from Microsoft Access databases as well as the LIMS database

___ ___ 18.1.3.7 Create barcharts, trend lines, pie charts with retrieved data

___ ___ 18.2 Pre-programmed Reports: The following set of pre-programmed LIMS reports shall be provided:

___ ___ 18.2.1 Samples received for a user-specified time frame

___ ___ 18.2.2 Samples analyzed for a user-specified time frame

___ ___ 18.2.3 Single sample and batch sample Test Results report, including comments and quality control data

___ ___ 18.2.4 Work Backlog report by sample status

___ ___ 18.2.5 Work Backlog report by due date (Sample Aging)

___ ___ 18.2.6 Test results Out of Limits report

___ ___ 18.2.7 Quality Control sample report

___ ___ 18.2.8 Quality Control Outlier report

___ ___ 18.2.9 Method detection limit determination status reports

___ ___ 18.2.10 Lab proficiency report based on number of valid results by method, instrument or by analyst, summarized by date range

___ ___ 18.2.11 NPDES discharge monitoring report

___ ___ 18.2.12 Monthly Total Coliform (1 page custom)

___ ___ 18.2.13 Quarterly TTHM/HAA5 (1 page custom)

___ ___ 18.3 Workload Management Reports: Workload management reports shall be provided to assist with interpretation for work assignment, staff load balancing and laboratory performance.

___ ___ 18.3.1 The following types of reports shall be provided as part of the standard LIMS software:

___ ___ 18.3.1.1 Sample Volume Report (number of samples processed)

___ ___ 18.3.1.2 Test Volume Report (number of tests performed)

___ ___ 18.3.1.3 Turnaround Time Report from sample receipt to approval, summarized by analysis)

___ ___ 18.3.1.4 User definable reports

___ ___ 18.4 Automatic Report Generation: Automatic report generation shall be an option available for any sample or sample set. Reports should be generated for a sample automatically when:

___ ___ 18.4.1 All analyses for a sample are complete.

___ ___ 18.4.2 Summary reports generated for predefined collection dates, analysis dates or customers.

___ ___ 18.5 Fax and/or E-mail Reporting: Reports should be able to be e-mailed or faxed from within the LIMS application including automatic report generation.

___ ___ 18.6 Electronic Signature: The LIMS should support electronic signatures that comply with 21 CFR 11.

INTERFACE REQUIREMENTS

___ ___ 1. Interface Requirements:

___ ___ 1.1 Electronic Instrument Interface: Provide data parsing files for the following instruments:

___ ___ 1.1.1 Dionex ICS2000 IC with Chromeleon Software

___ ___ 1.1.2 Metrohm-Peak 861 Advanced Compact IC

___ ___ 1.1.3 Shimadzu QP-5000 GCMS

___ ___ 1.1.4 Varian SpectrAA220G AA

___ ___ 1.1.5 Any instrument with an RS-232 Port

___ ___ 1.2 Provide a method to uniquely identify each instrument

1.3 Able to receive and process analytical and quality control sample results from instruments.

1.4 Provide references for each instrument electronic interface listed above.

___ ___ 2. Transferring Information

___ ___ 2.1 Unique Device ID: In order for the LIMS to acquire test results from laboratory instruments, the LIMS shall provide a method to uniquely identify each device.

___ ___ 2.2 Direct Data Transfer: The LIMS shall be able to receive and process analytical and quality control sample results directly from instruments which produce final results while the instrument is operational and without disrupting other LIMS users.

___ ___ 2.3 Data Processing: After processing or data reduction, the LIMS shall be able to receive and process analytical and quality control sample results from any PC.

___ ___ 2.3.1 The selected vendor shall provide the software required to transfer the data to the LIMS.

MEET SPEC. **SYSTEM SPECIFICATION**

YES NO FIRM NAME:_____

OTHER LIMS FUNCTIONALITY

___ ___ 1. Cost Accounting:

___ ___ 1.1 LWS may wish to associate labor and/or material cost with specific samples and analysis types.

___ ___ 1.1.1 The LIMS shall provide, at a minimum, the ability to associate appropriate accounting codes with the LIMS data.

___ ___ 1.1.2 This function shall provide a means of tracking costs for analytical purposes regarding specific projects or cost centers.

___ ___ 1.2 The Proposer shall describe all accounting features available with their LIMS product

___ ___ 1.3 This should be an optional feature which can be turned on and off as required.

___ ____ 1.3.1 It must not be necessary to invoice samples.

___ ___ 2. Chemical Inventory Module:

___ ___ 2.1 The LIMS shall include a chemical inventory module that can store the following information for chemicals: vendor, chemical name, received date, amount, lot number, catalog number, CAS #, expiration date and disposal date.

___ ___ 2.2 The inventory module should be able to estimate chemical usage based on predefined quantities used per sample analysis.

___ ___ 2.3 The inventory module should be able to provide notification when chemical inventory falls below a predetermined limit

___ ___ 2.4 The inventory module should provide chemical stock and solution tracking including date made, date verified free of contaminants and expiration date (the LIMS shall flag a preparation batch if expired chemicals are used.

___ ___ 2.5 The inventory module should provide Material Safety Data Sheets/MSDS tracking.

___ ___ 3. Personnel Module:

___ ___ 3.1 The LIMS shall be able to track personnel certification and training.

___ ___ 3.2 The LIMS should be able to provide notification that training is due.

___ ___ 4. Equipment Maintenance Module:

___ ___ 4.1 The LIMS should provide the ability to track instrument calibrations.

___ ___ 4.2 The LIMS should provide the ability to track instrument maintenance.

___ ___ 4.3 The LIMS should be to provide notification when instrument maintenance is required.

___ ___ 5. Portable Data Entry Terminal:

___ ___ 5.1 The LIMS shall be able to support portable data entry terminal hardware and software that can be used for sample collection and entry of field data such as chlorine residual and pH.

___ ___ 5.2 Entries should contain a date/time stamp and be able to be downloaded into the LIMS.

___ ___ 5.3 The LIMS shall be able to generate benchsheets usable on portable data entry terminals **(NOT PROVIDED BY VENDOR)**.

___ ___ 6. External Documentation:

___ ___ 6.1 The LIMS should provide a link to Standard Operating Procedures (in MS Word) for reference and editing.

___ ___ 6.2 The LIMS should provide the ability to attach scanned documents to individual samples or analytical results. (i.e. attach scanned chromatogram to a sample result; attach copy of MSDS to chemical inventory)

MEET SPEC. **SYSTEM SPECIFICATION**

YES NO FIRM NAME:_____

PRODUCT SUPPORT

___ ___ 1. Technical Support:

___ ___ 1.1 The Proposer shall provide support for all software products included under this contract.

___ ____ 1.2 Prior to Final Acceptance, the Proposer's support staff shall respond within two to four hours to all support calls placed during normal business hours, 7:00 a.m. to 6:00 p.m. Eastern Standard Time, Monday through Friday.

___ ___ 1.1.1 Support calls placed after normal business hours or on Saturday and Sunday shall be responded to within four hours on the first regular business day following notification.

___ ___ 1.2 One year of support shall be provided under this contract (from LIMS System Formal Acceptance date).

___ ___ 1.2.1 The support agreement shall be renewable on an annual contract basis.

___ ___ 1.3 The Proposer shall provide a toll-free telephone number for support calls.

___ ___ 1.4 The Proposer shall have local and/or national user groups for each software product identified in their proposal.

___ ___ 1.5 The Proposer shall have remote diagnostics, bulletin board / internet support.

___ ___ 1.6 The LIMS vendor shall provide an assigned LIMS account manager to LWS.

___ ___ 1.7 The LIMS vendor should be a Microsoft Certified Partner for more than 5 years.

___ ___ 2. Upgrades / Fixes:

___ ___ 2.1 Functional fixes to the software shall be provided as they are released at no extra cost. Supporting documentation for hardware and software reflecting modifications shall be supplied, when necessary, at no extra cost.

___ ___ 2.2 For as long as LWS maintains an active support agreement, upgrades and enhancements to the software shall be provided automatically at no additional cost.

___ ___ 2.3 Upgrades and enhancements shall be applicable even if customization has been completed by LWS system administrators.

___ ___ 2.4 Supporting documentation for software reflecting upgrades and enhancements shall be supplied at no extra cost.

___ ___ 2.5 Software service packs should be available for download from the vendor's website.

___ ___ 3. Documentation:

___ ___ 3.1 LWS shall own the LIMS source code

___ ___ 3.2 The Proposer shall provide complete hard and soft documentation for the LIMS application and the instrument interfaces.

___ ___ 3.2.1 This shall include installation instructions, system administration and maintenance, technical reference and users manuals and any other manuals relevant to the selected LIMS application and Data Dictionary.

___ ___ 3.3 A simple step-by-step users manual shall be provided for the end users and administrators.

TRAINING

___ ___ 1. LIMS System:

___ ___ 1.1 The selected Proposer shall train the laboratory and systems personnel in the use of all LIMS application software.

___ ___ 1.1.1 All training shall be conducted on-site at LWS.

___ ___ 1.2 The selected Proposer shall provide all instructors and instructional material including trainees' workbooks, instructor guides, training aids, equipment and technical manuals.

___ ___ 1.3 The selected Proposer shall coordinate with LWS regarding use of facilities when courses are to be held on-site.

___ ___ 1.3.1 Equipment and software that are provided as part of this contract may be utilized for training, provided they are not adversely affected.

___ ___ 1.3.2 Any equipment or software modified for training by the Proposer shall be restored to its original condition.

___ ___ 1.4 Courses that include general programming elements shall provide instruction such that the attending student will be capable of programming related software applications and/or modifications without guidance, or with only minimal supervision.

___ ___ 1.4.1 This requirement applies only to the software supplied by the LIMS Proposer.

___ ___ 1.5 At a minimum, required courses are as follows:

___ ___ 1.5.1 End-User Training - Provide training sessions at the City and instruct up to ten (10) endusers in the overall use and operation of the LIMS application software.

___ ____ 1.5.1.1 Training is to be provided in two separate sessions

___ ___ 1.5.2 System Administrator Training - Provide training at the City for two (2) owner designated personnel who will act as system administrators for the LIMS computer configuration and applications.

___ ___ 1.5.2.1 The training shall include LIMS administration tasks, software management functions and computer security.

___ ___ 1.5.2.2 The training shall also include complete system back-up and reload procedures, file management utilities and system generator procedures.

___ ___ 1.5.3 System Administrator Training shall include minor code modifications and add-ons.

___ ___ 1.5.4 Course outlines for end-user and administrator training are to be submitted.

INSTALLATION SERVICES

___ ___ 1. The Proposer shall provide installation and startup services including formatting all disks, loading required software on the LIMS server, client workstations, and instrument PCs, and creating all necessary custom command files to automatically activate the system upon startup.

___ ___ 2. Complete hard and soft copy documentation of the LIMS application software and the instrument interfaces shall be provided to the users before installation.

___ ___ 2.1 This includes users and reference manuals.

FUNCTIONAL AND ACCEPTANCE TESTING

___ ___ 1. The selected vendor must provide a test plan and perform testing on the system after installation to demonstrate functionality and performance.

1.1 This will be a checklist that verifies the specific functions and capabilities of the selected LIMS that are required by LWS and detailed in the Technical Specifications of this document.

___ ___ 2. The acceptance test period runs for the first 90 days after successful completion of the functional testing.

2.1 During this period, the LIMS will be utilized by the laboratory staff in day to day operations.

2.2 The purpose is to test the LIMS stability and completeness over time.

2.3 The selected vendor shall provide the following services during the installation and acceptance period:

___ ___ 2.3.1 Telephone assistance to users in operation of the system.

___ ___ 2.3.2 Resolution of deficiencies noted during the functional test and acceptance testing period.

___ ___ 2.3.3 Correction of major and minor software failures.

___ ___ 2.3.4 Upon notification of failure (via telephone call to designated telephone number), diagnose and provide fixes or work-arounds to the failed software.

___ ___ 2.3.5 Provide assistance necessary to return the system to correct operation.

FINAL ACCEPTANCE

___ ___ 1. Final acceptance is accomplished by successful functional testing and successful completion of the 90 day test period as determined by LWS.

REFERENCES

Provide three references for governmental agencies, or private organizations that are currently using this proposed LIMS in the Midwest United States.

Firm Name: _____

Address:_____

Contact Name: _____ Title:_____

Phone Number: _____ Fax:_____

Email Address: _____

Approximate date and LIMS version installed: _____

Firm Name: _____

Address:_____

Contact Name: _____ Title:_____

Phone Number: _____ Fax:_____

Email Address: _____

Approximate date and LIMS version installed: _____

MEET SPEC.
YES NO

SYSTEM SPECIFICATION

FIRM NAME:_____

Firm Name: _____

Address:_____

Contact Name: _____ Title:_____

Phone Number: _____ Fax:_____

Email Address: _____

Approximate date and LIMS version installed: _____

COMMENTS:

_____ _____ _____

Firm Name Signature Date

FIRM NAME:_____

LINCOLN WATER SYSTEM

LABORATORY INFORMATION MANAGEMENT SYSTEM

SCOPE OF WORK

QUESTIONNAIRE

Instructions for Completing Questionnaire

The Proposer shall answer the questionnaire following the format provided.
Be brief. However, use as many lines as necessary to answer completely.

System and LIMS Information

1. Hardware Compatibility

1.1 Has the product been tested with and installed on IP networks?

1.2 Specify any additional equipment or software required to be compatible with the existing network architecture, or to implement instrument interfaces.

1.3 Describe the licensing options for the LIMS including number of users, type of user (concurrent or named), right-to-copy, and number of hard copies of documentation.

2. Operating Systems

2.1 Is the proposed LIMS compatible with the Network specifications included in the RFP? If not, please explain in detail.

FIRM NAME:_____

3. Export / Import Functions

3.1 List the ASCII/CSV format options the product can export data to (ex: Commadelimited, space delimited).

3.2 Can the LIMS export out to GIS type products (i.e. ESRI ArcView, ArcGIS)?

3.3 List report writer tools that include native interfaces to the product (i.e. do not need to go through an ODBC driver).

3.4 Does the proposer have a business partnership with Labtronics (LimsLink)? Please list any partnerships which the proposer has with other company's.

4. Front-End Development

4.1 List the SQL/Oracle front-end development tools that have been installed and tested with the product.

4.2 List the SQL/Oracle front-end development tools that are recommended with the product.

4.3 What are the limitations on user/system administrator customizations?

5. Report Writer

5.1 List report writer tools that have been tested with the product.

5.2 List manufacturer, product name and version for recommended report development tool to satisfy Information Reporting requirements.

5.3 Please provide a list of "pre-programmed" report templates that are provided with the LIMS. Please provide examples of at least five (5) reports as listed in RFP.

5.4 Will the LIMS work with user created custom reports?

6. General LIMS Capabilities

6.1 How does the LIMS handle tracking samples sent to outside labs, including entering of tests and QC results into LIMS, lab name, date sent out and date returned?

6.2 Can documents (chromatograms, contract lab reports, chemical MSDS) be scanned, linked and embedded in the LIMS? Please provide examples.

7. Statistical Analysis and Graphics

7.1 Please describe the Statistical Analysis and Graphical functionality provided.

7.2 Does the LIMS provide control charting capabilities including pre-determined control limits, "real-time" statistical control limits and out-of-control warnings and reports?

7.3 Please list any "3rd Party" software which are used for statistical analysis and graphics.

8. LIMS Interfaces with Other Products

8.1 List Proposer and third party Word Processing, Spreadsheet and e-mail products with which the LIMS has interfaces. Does the LIMS work with LotusNotes?

8.2 Does the proposed LIMS have the capability to interact with Tablet PC or wireless applications? Please list Tablet PC applications (hardware and software) available for the proposed LIMS.

9. Instrument Data Acquisition

9.1 Describe interface procedures and requirements for each instrument listed below for electronic interface and indicate whether you have previously interfaced this instrument with your LIMS product.

- Dionex ICS2000 IC with Chromeleon Software
- Metrohm-Peak 861 Advanced Compact Ion Chromatograph
- Shimadzu QP-5000 GCMS
- Varian SpectrAA220G AA

9.2 Please list other RS-232 interfaces which you have experience with.

10 Product Support

10.1 Please describe your product support options, including response times, days available each week, and what support is provided.

10.2 Does the LIMS have "on-line" help within the system? Please describe the type of help available.

10.3 Are there user groups for the LIMS? If so, where? How often do they meet?

10.4 What is your process for identifying and setting priorities on enhancements and fixes?

10.5 What is the frequency of new releases? What is the estimated time in person hours required to upgrade to new releases?

10.6 Does service agreement include software upgrades?

10.7 Please provide description and recommendations for product/staff training including which types for users, administrators and support staff, and how many days each. Please indicate which training sessions are included in the LIMS set-up/training as proposed.

11. Proposer Information

11.1 How long has your company been in business selling LIMS?

11.2 What is the address of your office supporting the LIMS?

11.3 How many professional personnel are dedicated to the LIMS?

11.4 Research and development:

11.5 Software support:

11.6 How many customers have the proposed LIMS software installed?

11.7 What is the profile of your customer base (i.e. what % are water utilities, wastewater utilities, commercial, etc.)?

INSTRUCTIONS TO PROPOSERS
CITY OF LINCOLN, NEBRASKA
PURCHASING DIVISION

1. PROPOSAL PROCEDURE

1.1 Each RFP must be legibly printed in ink or typed, include full name, business address, telephone number, fax number and email address of the Proposer; and be signed in ink by the Proposer.

1.2 Response by a firm/organization other than a corporation must include the name and address of each member.

1.3 A response by a corporation must be signed in the name of such corporation by a duly authorized official thereof.

1.4 Any person signing a response for a firm, corporation, or other organization must show evidence of his authority so to bind such firm, corporation, or organization.

1.5 Proposals received after the time and date established for receiving offers will be rejected.

2. EQUAL OPPORTUNITY

2.1 Each proposer agrees that it shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, national origin, age, or marital status. In the employment of persons, proposer shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to race, color, religion, sex, disability, national origin, age, or marital status.

3. DATA PRIVACY

3.1 Proposer agrees to abide by all applicable State and Federal laws and regulations concerning the handling and disclosure of private and confidential information concerning individuals and corporations as to inventions, copyrights, patents and patent rights.

3.2 The proposer agrees to hold the City harmless from any claims resulting from the proposer's unlawful disclosure or use of private or confidential information.

4. PROPOSER'S REPRESENTATION

4.1 Each proposer by signing and submitting an offer, represents that he/she has read and understands the specification documents, and the offer has been made in accordance therewith.

4.2 Each offer for services further represents that the proposer is familiar with the local conditions under which the work and has correlated the observations with the requirements of the RFP.

5. SPECIFICATION CLARIFICATION

5.1 Proposers shall promptly notify the Purchasing Agent of any ambiguity, inconsistency or error which they may discover upon examination of specification documents.

5.2 Proposers desiring clarification or interpretation of the specification documents shall make a written request which must reach the Purchasing Agent at least seven (7) calendar days prior to date and time for response receipt, unless otherwise noted in RFP.

5.3 Interpretations, corrections and changes made to the specification documents will be made by written addenda.

5.4 Oral interpretations/changes to Specification Documents made in any other manner, will not be binding on the City; proposers shall not rely upon oral interpretations.

6. ADDENDA

6.1 Addenda are written documents issued by the City prior to the date for receipt of offers which modify or interpret the specification document by addition, deletion, clarification or correction.

6.2 Addenda will be mailed or delivered to all who are known by the City to have received a complete set of specification documents.

6.3 Copies of addenda will be made available for inspection at the office of the Purchasing Agent.

6.4 No addendum will be issued later than forty-eight (48) hours prior to the date and time for receipt of offers, except an addendum withdrawing the RFP, or addendum including postponement.

6.5 Proposers shall ascertain prior to submitting their offer that they have received all addenda issued, and they shall acknowledge receipt of addenda in their proposal.

7. ANTI-LOBBYING PROVISION

7.1 During the period between the proposal advertisement date and the contract award, proposers, including their agents and representatives, shall not lobby or promote their proposal with any member of the City Council or City Staff.

8. EVALUATION AND AWARD

8.1 The signed proposal shall be considered an offer on the part of the proposer. Such offer shall be deemed accepted upon issuance by the City of purchase orders, contract award notifications, or other contract documents appropriate to the work.

8.2 No offer shall be withdrawn for a period of ninety (90) calendar days after the time and date established for receiving offers, and each proposer agrees in submitting an offer.

8.3 In case of a discrepancy between the unit prices and their extensions, the unit prices shall govern.

8.4 The RFP process is designed to be a competitive negotiation platform, where price is not required to be the sole determinative factor; also the City has the flexibility to negotiate with a select firm or selected firms to arrive at a mutually agreeable relationship.

8.5 A committee will be assigned the task of reviewing the proposals received.

8.5.1 The committee may request documentation from Proposer(s) of any information provided in their proposal response, or require the Proposer to clarify or expand qualification statements.

8.5.2 The committee may also require a site visit and/or verbal interview with a Proposer or select group of Proposers to clarify and expand upon the proposal response.

8.6 The offer will be awarded to the lowest responsive, responsible proposer whose proposal will be most advantageous to the City, and as the City deem will best serve their requirements.

8.7 The City reserves the right to accept or reject any or all offers, parts of offers; request new proposals, waive irregularities and technicalities in offers; or to award the RFP on a split-order basis, or lump-sum basis; such as shall best serve the requirements and interests of the City.

9. INDEMNIFICATION

9.1 The proposer shall indemnify and save harmless the City of Lincoln, Nebraska from and against all losses, claims, damages, and expenses, including, attorney's fees arising out of or resulting from the performance of the contract that results in bodily injury, sickness, disease, death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom and is caused in whole or in part by the proposer, any subcontractor, any directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. This section will not require the proposer to indemnify or hold harmless the City of Lincoln for any losses, claims damages, and expenses arising out of or resulting from the sole negligence of the City of Lincoln, Nebraska.

9.2 In any and all claims against the City or any of its members, officers or employees by an employee of the proposer, any subcontractor, anyone directly or indirectly employed by any of them or by anyone for whose acts made by any of them may be liable, the indemnification obligation under paragraph 9.1 shall not be limited in any way by any limitation of the amount or type of damages, compensation or benefits payable by or for the bidder or any subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

10. LAWS

10.1 The Laws of the State of Nebraska shall govern the rights, obligations, and remedies of the Parties under this proposal and any agreement reached as a result of this process.

10.2 Proposer agrees to abide by all applicable State and Federal laws and regulations concerning the handling and disclosure of private and confidential information concerning individuals and corporations as to inventions, copyrights, patents and patent rights.

11. AWARD

11.1 The RFP process is designed to be a competitive negotiation platform, where price is not required to be the sole determinative factor; also the City has the flexibility to negotiate with a selected firm or firms to arrive at a mutually agreeable relationship.

11.2 The City shall be the sole judge as to merits of the proposal, and the City's decision will be final.

11.3 A committee will be assigned by the Mayor with the task of reviewing the proposals received.

11.3.1 The committee may request documentation from Proposer(s) of any information provided in their proposal response, or require the proposer to clarify or expand qualification statements.

11.3.2 A short list of firms from proposals submitted may be selected for a presentation to the committee and ranked by committee members.

11.4 Final approval to enter into contract negotiations with the top ranked firm will be by the Mayor of the City of Lincoln.

11.5 The City shall not be liable for any expense incurred in connection with preparation of a response to this RFP.

11.6 The contract document shall incorporate by reference all requirements, terms and conditions of the solicitation, proposal received and all negotiated details.

12. LIVING WAGE

12.1 The bidders agree to pay all employees employed in the performance of this contract, a base wage of not less than the City Living Wage per Section 2.81.010 of the Lincoln Municipal Code. This wage is subject to change every July.